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EXAMINER	
NG, CHRISTINE Y	
ART UNIT	**PAPER NUMBER**
2663	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,635	HO ET AL.	
	Examiner	Art Unit	
	Christine Ng	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,17-19,21,22,27-20 and 32-53* is/are rejected.

7)☒ Claim(s) *16,20,23-26 and 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/3/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to because of the following informalities:

Claim 11 cannot depend on itself.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10, 32, 33, 35 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,614,799 to Gummalla et al.

Referring to claim 1, Gummalla et al disclose in Figure 1 a method for adaptively controlling network traffic load in a communications network with a shared communications medium comprising:

Determining the network traffic load. Refer to Column 11, lines 62-67.

Calculating network performance metrics (number of successes Ns and number of collisions Nc) based on the network traffic load. Refer to Column 12, lines 1-34 and Column 13, lines 36-42.

Adjusting the network traffic load based on the network performance

metrics. By determining the Nc/Ns ratio, the CMTS 104 adjusts the backoff values in order to control the network load when cable modems 120 are contending for slots. Refer to Column 11, line 21 to Column 12, line 34.

Referring to claim 2, Gummalla et al disclose in Figure 1 that the shared communication medium is shared by a plurality of stations (cable modems 120), and wherein only stations with traffic to transmit monitor traffic load and calculate network performance metrics and adjust traffic load. "In this technique, each station tries to estimate how many other stations are trying to access the corresponding contention channel by using statistics of the number of successfully received contention slots, the number of collided contention slots, and the number of empty contention slots on a given contention channel". Refer to Column 12, lines 13-18 and Column 13, lines 36-42. Cable modems 120 therefore have a role in calculating Nc and Ns.

Referring to claim 3, Gummalla et al disclose that the network performance metrics are selected from the group consisting of: an amount of time the shared communications medium is in an idle state (none), an amount of time the shared communications medium is in a collision state (none), an amount of time the shared communications medium is in a successful transmission state (none), a number of frames successfully transmitted (Ns), a number of frames unsuccessfully transmitted (Nc), and combinations thereof. Refer to Column 12, lines 19-34.

Referring to claim 4, Gummalla et al disclose that determining the network traffic load comprises monitoring a status of the shared communications medium for

every time slot of the shared communications medium. The shared communication medium is monitored during all time slots for Nc and Ns. Refer to Column 5, line 47 to Column 6, line 8 and Column 12, lines 19-34.

Referring to claim 5, Gummalla et al disclose in Figure 7 that determining the network traffic load is performed by a hybrid controller (CMTS 104). Refer to Column 15, lines 27-50.

Referring to claim 6, Gummalla et al disclose in Figure 1 that the shared communications medium is shared by a plurality of stations (cable modems 120), and wherein determining the network traffic load is performed by each station. Refer to the rejection of claim 2.

Referring to claim 7, Gummalla et al disclose in Figure 4 that the adjusting step comprises calculating adjustments to network access parameters (back-off start and back-off end parameters) based on the network performance metrics and determining the network access parameters. Refer to Column 16, line 54 to Column 18, line 46.

Referring to claim 8, Gummalla et al disclose in Figure 1 that shared communications medium is shared by a plurality of stations (cable modems 120), and wherein the network access parameters are determined by each station. Refer to the rejection of claim 2.

Referring to claim 9, Gummalla et al disclose that the network access parameters are selected from the group consisting of: contention window size (back-off start and back-off end parameters), traffic category permission probability (none), DIFS value (none), PIFS value (none), SIFS value (none), EIFS value (none), update interval size

(none), update interval threshold (none), backoff time amount (back-off start and back-off end parameters), and combinations thereof. Refer to Column 11, lines 62-67.

Referring to claim 10, Gummalla et al disclose in Figure 7 that the network access parameters are determined by a hybrid controller (CMTS 104). Refer to Column 15, line 27 to Column 16, line 3.

Referring to claim 32, Gummalla et al disclose in Figure 7 a centralized controller (CMTS 204) comprising:

A memory (CMTS PHY/MAC hardware 704). Refer to Column 15, lines 15-24.

A processor (CMTS MAC software 702) coupled to the memory, the processor including circuitry to generate and update traffic category permission probabilities (back-off start and back-off end parameters for each channel i). Each channel has its own back-off start and back-off end parameters, which is updated by determining the Nc/Ns ratio. Refer to Column 11, lines 4-21 and Column 15, lines 27-65.

A network monitor (collision detect circuit 708A) coupled to a shared communications medium and the processor, the network monitor including circuitry to maintain network performance metrics (Nc[i] 720 and Ns[i] 722). Refer to Column 15, lines 35-65.

An update probability signal flag (not shown) coupled to the processor, the update probability signal flag to notify the processor to update the traffic category permission probabilities. At the end of a sampling interval, the total number of collisions Nc and successes Ns for a channel are used to adjust the back-off parameters. Refer to Column 16, lines 15-39.

Referring to claim 33, Gummalla et al disclose in Figure 7 that the update probability signal flag is asserted at regular time intervals (sampling intervals). At the end of a sampling interval, the total number of collisions Nc and successes Ns for a channel are used to adjust the back-off parameters. Refer to Column 16, lines 15-39.

Referring to claim 35, Gummalla et al disclose in Figure 7 that the centralized controller further comprises a transmitter (downstream transmitter 714) for transmission of the traffic category permission probabilities (back-off start and back-off end parameters). Refer to Column 15, line 67 to Column 16, line 3.

Referring to claim 36, Gummalla et al disclose in Figure 7 that transmission of the traffic category permission probabilities (back-off start and back-off end parameters) occurs following an update of the traffic category permission probabilities. Refer to Column 15, line 67 to Column 16, line 3.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 37, 40-44, 46, 48, 49, 50 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,517,501 to Jacquet et al.

Referring to claims 37 and 50, Jacquet et al disclose in Figure 1 a communications network comprising:

A shared communications medium (MT).

At least two stations (Pa-Pc), coupled to the shared communications medium, each station capable of communication with the other. Refer to Column 3, lines 56-61. As shown in Figure 2, each station comprises:

A memory (observation register RO). Refer to Column 4, lines 60-66.

A processor (network interface I) coupled to the memory, the processor containing circuitry to generate and update traffic category permission probabilities. A series of quantities of probability $p_i(t)$ is maintained, equal in number to the number of n of priority levels to be managed within the terminal (i goes from 1 to n). Each quantity $p_i(t)$ is also updated after a series of observations. Refer to Column 8, line 20 to Column 9, line 47.

A medium contention unit (circuit RE), coupled to the shared communications medium and the processor, the medium contention unit contending for access to the shared communications medium. Refer to Column 4, lines 15-59. The medium contention unit comprises:

A medium status flag (detection signal ECOLL, CDO), coupled to the shared communications medium, the medium status flag to denote the status of the shared communications medium. Unit RE provides pulse or detection signal ECOLL to denote that a collision has just taken place on the channel, and CD0 if the channel is vacant. Refer to Column 4, lines 15-24 and lines 45-59.

A station status flag (detection signal E/R), coupled to the shared communications medium and the processor, the station status flag to denote the state of the station for transmission. Unit RE sets pulse or detection signal E/R to true if

outward transmission is taking place, and false during reception. Refer to Column 4, lines 15-24 and lines 49-59.

The station further comprising a transmitter (connection between MT and RE), coupled to the processor and the shared communications medium, the transmitter to transmit information.

Referring to claim 40, Jacquet et al disclose in Figure 2 that the medium status flag (CD0) is asserted when the shared communications medium is sensed by the communications medium to be in an idle state. Refer to Column 4, lines 45-48.

Referring to claim 41, Jacquet et al disclose in Figure 2 that the station is permitted to transmit information when both the medium status flag (CD0) and the station status flag (E/R) are asserted. When there is no collision (CD0 is set), the E/R signal is set to allow for transmission. Refer to Column 4, lines 15-24 and lines 45-48.

Referring to claims 42 and 43, Jacquet et al disclose that the station further comprises:

A network monitor (circuitry attached to RE), coupled to the shared communications medium and the processor, the network monitor to calculate network performance metrics (determination of vacant and collision slots). Refer to Column 4, lines 15-66.

A update probability signal flag (any observation or series of observations), coupled to the processor, the update probability signal flag to denote that the traffic category permission probabilities require updating. Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

Referring to claim 44, Jacquet et al disclose that the update probability signal flag (any observation or series of observations) is asserted at regular time intervals. Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

Referring to claims 46 and 48, Jacquet et al disclose that the station further comprises a traffic category permission probability update flag (any observation or series of observations) coupled to the processor, the traffic category permission probability update flag to denote that the traffic category permission probabilities have been updated. Each of the probabilities $p_i(t)$ can be updated by a re-updating function q_i. Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

Referring to claim 49, Jacquet et al disclose that the processor calculates a new overall permission probability when the traffic category permission probability update flag is asserted. Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

Referring to claim 52, Jacquet et al disclose that each station specifies and updates its own traffic category permission probabilities ($p_i(t)$). Each station updates its $p_i(t)$'s through a series of observations. Refer to Column 9, lines 6-19.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,614,799 to Gummalla et al in view of U.S. Patent No. 6,791,996 to Watanabe et al.

Gummalla et al disclose in Figure 1 that the shared communications medium is shared by a plurality of stations (cable modems 120), and wherein the network access parameters (back-off start and back-off end parameters) are transmitted to each station. Refer to Column 11, lines 4-10 and Column 15, lines 56-63.

However, Gummalla et al do not disclose that the network access parameters are transmitted to each station *in a beacon frame*.

Watanabe et al disclose in Figure 1 that a control station sends to the communication stations a broadcast through a beacon signal defining the available time slots in time frame. Refer to 1, lines 18-28 and Column 5, lines 7-27. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the network access parameters are transmitted to each station *in a beacon frame*, the motivation being that a beacon frame is commonly used for transmitting information from a central controller to communication stations in CSMA systems.

8. Claims 12, 14, 15, 17-19, 27, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,517,501 to Jacquet et al.

Referring to claim 12, Jacquet et al disclose a method for adaptively controlling

network traffic (Figure 1, between Pa-Pc) on a communications network with a shared communications medium (Figure 1, MT), comprising (Figure 6):

(1) Determining traffic category permission probabilities ($p_i(t)$). A series of quantities of probability $p_i(t)$ is maintained, equal in number to the number of n of priority levels to be managed (i goes from 1 to n) within the terminal. Refer to Column 8, lines 20-28.

(2) Calculating an overall permission probability, PP (an associated quantity $p_i(t)$). For a packet stored in the upstream buffer, its priority level i is associated with a corresponding $p_i(t)$. Refer to Column 8, lines 37-41.

(3) Contending for access to the shared communications medium. Refer to Column 8, lines 37-67.

(4) Determining updated traffic category permission probabilities. Each quantity $p_i(t)$ is maintained in accordance with observations by means of a law or re-updating function q_i, which decreases pi(t) in the event of an abundance of collision slots and increases pi(t) in the event of an abundance of vacant slots. Refer to Column 9, lines 6-19.

(5) Repeating steps (2)-*(3)* until buffered traffic is transmitted. Jacquet et al disclose that for each packet stored in the upstream buffer, the packet is transferred to the transmission/reception manager using the method of Figure 6.

Jacquet et al do not specifically disclose that the traffic category permission probabilities are updated each time.

However, Jacquet et al disclose in Figure 4 in another embodiment of the invention that every time a collision occurs, the integer E is updated using a series of observations (steps 405,406,410,420,430). As the integer E approaches '0', it denotes that there are an abundance of vacant slots so that transmission can be attempted again. Refer to Column 5, line 43 to Column 6, line 33. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the traffic category permission probabilities are updated each time. One would be motivated to doing so because the traffic category permission probabilities are updated based on observations and the observations must be made periodically in order to inform the units of the number of collision slots and vacant slots. If there are an abundance of vacant slots, it will be easier for the unit to transmit packets onto the shared medium. Refer to Column 9, lines 6-19.

Referring to claim 14, Jacquet et al disclose in Figure 1 that the shared communications medium (MT) is shared by a plurality of stations (Pa-Pc), and wherein determining traffic category permission probabilities $p_i(t)$ comprises each station assigning the traffic category permission probabilities. Each quantity $p_i(t)$ is maintained in accordance with observations by means of a law or re-updating function q_i, which decreases pi(t) in the event of an abundance of collision slots and increases pi(t) in the event of an abundance of vacant slots; the collision slots and vacant slots are measured by the station itself. Refer to Column 9, lines 6-19.

Referring to claim 15, Jacquet et al disclose that there are a plurality of traffic categories, and wherein a traffic category permission probability $p_i(t)$ is assigned for each traffic category. Refer to Column 8, lines 25-28.

Referring to claim 17, Jacquet et al disclose in Figure 1 that the shared communications medium (MT) is shared by a plurality of stations (Pa-Pc), and wherein the calculating overall permission probability step is performed by station with traffic to transmit. Each station with traffic in its upstream buffer determines a packet's associated pi(t). Refer to Column 8, lines 37-41.

Referring to claim 18, Jacquet et al disclose in Figure 6 that the contending for access step comprising determining if a contending station is permitted to transmit (has data in its upstream buffer), and sending traffic from an appropriate traffic category (high priority category). Refer to Column 8, lines 37-67.

Referring to claim 19, Jacquet et al disclose in Figure 6 that the determining step comprises generating a random number X (g(t)); and granting the contending station permission to transmit only if the random number, X, is less than or equal to the overall permission probability, PP (an associated quantity $p_i(t)$). Refer to Column 8, lines 20-49.

Referring to claim 27, Jacquet et al disclose that determining updated traffic category permission probabilities (pi(t)) is asserted at regular time intervals (every time an observation is made). Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

Referring to claim 28, Jacquet et al disclose in Figure 1 that the shared communications medium (MT) is shared by a plurality of stations (Pa-Pc), and wherein determining traffic category permission probabilities ($p_i(t)$) is performed at each station with traffic to transmit. Each quantity $p_i(t)$ is maintained in accordance with the observations by means of a law or re-updating function q_i, which decreases pi(t) in the event of an abundance of collision slots and increases pi(t) in the event of an abundance of vacant slots; the collision slots and vacant slots are measured by the station itself. Refer to Column 9, lines 6-19.

Referring to claim 30, Jacquet et al disclose that determining updated traffic category permission probabilities (pi(t)) occurs at irregular time intervals and is triggered by a network performance metric (observation of vacant or collision slot). Any observation or series of observations brings about an updating of $p_i(t)$. Refer to Column 9, lines 6-19.

9. Claim 13, 21, 22, 29, 45, 47, 51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,517,501 to Jacquet et al in view of U.S. Patent No. 6,614,799 to Gummalla et al.

Referring to claims 13, 29, 47, 51 and 53, Jacquet et al do not disclose that the system comprises a centralized controller, which assigns and updates the traffic category permission probabilities.

Gummalla et al disclose in Figure 1 a centralized controller (CMTS 104) that controls data transmission to cable modems 120. The CMTS 104 also specifies and updates backoff window parameters for cable modems 120. Refer to Column 2, line 35

to Column 3, line 8 and Column 6, line 56 to Column 7, line 9. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the system comprises a centralized controller which assigns and updates the traffic category permission probabilities, the motivation being in order to control and coordinate data transmission among the communication units.

Referring to claim 21, Jacquet et al disclose that the contending for access step comprises determining if a contending station can transmit and sending traffic from an appropriate traffic category. Refer to Column 9, lines 37-67.

However, Jacquet et al do not disclose setting a backoff timer.

Gummalla et al disclose in Figure 1 wherein a plurality of cable modems 120 contend for channel access by choosing a backoff time from a backoff window. Refer to Column 6, line 56 to Column 7, line 20. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include setting a backoff timer; the motivation being so that if an unit collides with another unit during packet transmission, it will set its timer to wait a certain number of contention slots before retransmitting the packet.

Referring to claim 22, Jacquet et al do not disclose that setting the backoff timer comprises generating a random number, X; calculating a backoff time based on the random number, X; and setting the backoff timer to the backoff time.

Gummalla et al disclose in Figure 1 wherein a plurality of cable modems 120 contend for channel access by choosing a backoff time from a backoff window. Setting the backoff timer comprises generating a random number, X (random number selected

from a backoff window); calculating a backoff time based on the random number, X; and setting the backoff timer to the backoff time. Refer to Column 6, line 56 to Column 7, line 20. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include setting a backoff timer; the motivation being that setting the backoff timer comprises generating a random number, X; calculating a backoff time based on the random number, X; and setting the backoff timer to the backoff time. One would be motivated to do so since each of the colliding modems will independently pick a random number from the window so that the chances of more than one modem choosing the same random number is low, thereby minimizing collision.

Referring to claim 45, Jacquet et al do not disclose that the update probability signal flag is asserted when network performance metrics exceed prespecified values.

However, Gummalla et al disclose that back-off values are chosen so that the Nc/Ns ratio will reach an optimum value of 0.7. If the back-of values are incorrect, the resulting ratio of Nc/Ns will diverge from the value 0.718. Refer to Column 14, lines 10-25. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the update probability signal flag is asserted when network performance metrics exceed prespecified value; the motivation being to obtain an optimum value for the back-off parameters.

10. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,614,799 to Gummalla et al.

Gummalla et al disclose that the update probability signal flag is asserted at regular time intervals (sampling intervals), not *when network performance metrics exceed prespecified values.*

However, Gummalla et al disclose that back-off values are chosen so that the Nc/Ns ratio will reach an optimum value of 0.7. If the back-of values are incorrect, the resulting ratio of Nc/Ns will diverge from the value 0.718. Refer to Column 14, lines 10-25. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the update probability signal flag is asserted when network performance metrics exceed prespecified value; the motivation being to obtain an optimum value for the back-off parameters.

11. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,517,501 to Jacquet et al

Referring to claim 38, Jacquet et al do not specifically disclose that the station status flag is asserted when a timer has counted a prespecified number of idle slots.

However, Jacquet et al disclose that when there is an abundance of vacant slots, as counted by the observation register RO, the station will increase $p_i(t)$ to allow the station to transmit. Refer to Column 6, 6-19. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the station status flag is asserted when a timer has counted a prespecified number of idle slots; the motivation being so that the station can transmit when the channel is vacant.

Referring to claim 39, Jacquet et al do not specifically disclose that the station status flag is asserted when a random number generated by the processor is less than or equal to an overall permission probability calculated by the processor.

However, Jacquet et al disclose that when a randomly generated number g(t) is less than or equal to an overall permission probability $p_i(t)$, a packet can be transmitted. Refer to Column 8, lines 37-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the station status flag is asserted when a random number generated by the processor is less than or equal to an overall permission probability calculated by the processor. One would be motivated to do so in order for the station to notify other stations through a flag that it is utilizing the shared medium for data transmission.

Allowable Subject Matter

12. Claims 16, 20, 23-26 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng CN
August 31, 2005

RICKY NGO
PRIMARY EXAMINER

9/14/05